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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,731	09/24/2001	Achim Mueller	1454.1096	4217
21171	7590	07/21/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ABEBE, DANIEL DEMELASH	
			ART UNIT	PAPER NUMBER
			2655	5

DATE MAILED: 07/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,731

Applicant(s)

MUELLER ET AL.

Examiner

Daniel D Abebe

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 10-27 is/are rejected.
- 7) ☒ Claim(s) 3 and 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/01</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-6 and 10-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levey (5,398,300) and in view of Keeler et al. (6,216,048).

As to claim 26 Levey teaches a computer system (Fig.1) comprising;
a map unit to map input variables (13) each having an associated weights (9) into output components produced by said mapping',
comparison unit (15, 23, 33) to compare the output component produced from said mapping with a desired output variable to be produced from said mapping to obtain a result', and
a rule generation unit (31) for generating rule based on the output value while identifying input variables having little influence on the output (Col.22, lines 15-42; Col.24, lines 24-30; Col.17, lines 52-58; Figure 5). Levey doesn't explicitly teach reducing the input variable weight as claimed. Keeler, however, teaches a mapping system having input variables, where input variable that cause little or no change in the output are identified and reduced or eliminated (Col.2, lines 15-28; Fig.17). Therefore, one skilled in the art would appreciate the advantage of modifying the Levey art especially in view of Keeler's, for the purpose of reducing the number of the input variables.

Claims 1 and 27 are analogous to claim 26 and are rejected by Levey in view of Keeler for the foregoing reasons,

As to claim 2, Levey teaches where the method involves identifying the value of an input (or the weight associated with the input variable), iterating the network, and noting whether there is any meaningful change in the network's output (Fig.5) and Keeler teaches where input variables having less influence are eliminated.

As to claims 4-6, Levey teaches where the method includes weight having a predetermined value and a mapping process having a transfer function (Fig.1; Col.8, lines 25-27).

With respect to claims 10-16 and 21-24, Levey teaches where the mapping is applied by a neural network, having variable inputs and further comprising iterative calculating and comparing (Figs.1-5).

As to claim 17, Levey teaches where different kind of decision are made on each result (Fig.1).

With respect to claim 21 Levey doesn't explicitly teach where the input to the network is speech. However, Official Notice is taken that neural network for processing speech signal are common and well known and one of ordinary skilled in the art can use Levey's system for such purpose.

Allowable Subject Matter

Claims 3 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D Abebe whose telephone number is 703-308-5543. The examiner can normally be reached on monday-friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Abebe, Primary Examiner A.U. 2655

A handwritten signature in black ink, appearing to read 'Daniel Abebe', with a stylized, flowing script.

July, 14 2004